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ABSTRACT

Electronic mail is one of several telecommunications technologies that have become potent factors in modern organizational communication. The introduction of such sophisticated microelectronic technology into an organization can have a strong impact on the patterns of communication within that organization. This is the case for the Florida House of Representatives, which installed an electronic mail network during the latter part of 1988. Following introduction of this information technology, some communication patterns among the House staff remained the same, such as sending memos regarding meetings. The change came by increasing their messaging efficiency. Other communication patterns that emerged because of the technology changed the way work was done, such as joint ventures in the cooperative drafting of documents, made possible by the speed and document delivery functions of the electronic mail system. This paper discusses the changes in these and other communication patterns in the Florida House of Representatives, and presents a theoretical perspective on the impact of electronic mail in an information-intensive organization. (15 references) (GL)

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Electronic Mail and Information Empowerment

The Impact of Computer Mediated Communications in the Florida State Legislature

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Paper to be Presented at the 17th Annual Conference of the Telecommunication Policy Research Council, Airlie, VA, October 1989.

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Electronic Mail and Information Empowerment

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Introduction

When I first conceived of this project, I thought that electronic mail would be a means of enhancing the political effectiveness of legislators in the Florida House of Representatives. Now I consider it a tool for enhancing the coordinative and cooperative activities of the House staff, and that the added communication efficiencies that stem from its use will in turn impact the political process in the Legislature. The impact will not come from political power, though, but from an increase in communication efficiency and effectiveness. Electronic mail is one of several telecommunication technologies that have become potent factors in modern organizational communication. The communication efficiency among members of an organization can increase dramatically with E-mail systems, particularly in an environment which is information intensive.

The introduction of such sophisticated microelectronic technology into an organization can have a strong impact on the patterns of communication within that organization. This is the case for the Florida House of Representatives, which installed an electronic mail (e-mail) network during the latter part of 1988.

Following the introduction of this information technology, some communication patterns among the House staff remained the same, such as sending memos regarding meetings; the change came by increasing their messaging efficiency. Other communication patterns that emerged because of the technology changed the way work was done, for example through ventures in the cooperative drafting of documents, made possible by the speed and document delivery functions of the e-mail system. This paper discusses the changes in these, and other communication patterns in the House of Representatives, and presents a theoretical perspective on the impact of e-mail in an information-intensive organization.

Organizational Communication Linkages

There is little doubt that the advent of computing and advanced telecommunications has had an enormous impact on American society in general and on business and government organizations in particular. The diffusion of information and communication technologies has had its greatest impact on the nature of American employment. Fully half of the jobs in the country are now classified as "information sector" jobs. This classification groups all jobs whose primary tasks entail the creation or generation of information, and its processing, transmission, storage or presentation of information (Porat, 1975; OECD, 1981; Sweeney, 1982). The people who hold these jobs work in an increasingly information-intensive environment, and come to rely heavily on the computers and telephones that they use daily. Among the most information-intensive environments are state government, especially when the legislature is in session.

The growing sophistication and integration of microelectronic technology accelerates changes in organizational communication patterns. The convergence of computing and telecommunications technology is sparking off a rapid diffusion of computer communications applications such as electronic mail, facsimile and on-line data services. The information technology emerges, in part, in response to needs that exist within organizations; however, when the technology is put into use, human creativity also molds its functionality, often pushing the technology to its limit by inventing new ways to employ it. These two actions work reciprocally in the evolution of both technology and organization. Trying to adequately theorize about the dynamics of this evolution raises several problems for communication research, not the least of which is a dearth of concepts to define the new organizational communication patterns that emerge as a result of the new technologies.

The impact of communication technology is readily evident in a political organization such as the Florida State Legislature. Indeed, a political system can be defined by the nature of its communication - both external and internal. As a decision-making organization, the legislature places a high value on the flow of information (see: Deutsch, 1963). As a law-enacting organization the political system "rests upon communication processes transmitting values among humans" (Merritt, 1972). The transmission of value is two-way, between the political system and the larger society which it represents and guides. All of these communication functions rely to some extent on the communication technologies that exist in the society. This paper

is concerned with the internal information flows in the political organization, and the communication infrastructure that facilitates the creation and transmission of that information.

Systems theorists argue that any social system is "characterized by two basic interdependent constructs: organizing and communicating" (Eisenberg, et al, 1986; Buckley, 1967). Communication in the systems theory model is a process of selection from a variety of information sets. Information carries meaning, thus each information set is a "knowledge resource", either another person or accessible in a storage medium. The political organization, as an instance of a social system, requires communication linkages in order to both organize and communicate. The efficiency and reliability of these linkages underlies the effective functioning of the political organization.

Eisenberg (Eisenberg, et al, 1986) identifies two types of communication linkages: information and material. Information linkages are symbolic, whereas material linkages are tangible goods; the organization must maintain the appropriate infrastructure to support the functioning of both of these linkages. Each of these linkages exists at different levels of formality and personal orientation within the organization. Eisenberg posits three levels: the institutional, which entails official, nonpersonal communication between organizations; the representative, which entails official, interpersonal communication; and the personal, which entails unofficial, interpersonal communication. This study is concerned primarily with the repre-

sentative level of communication linkages, but these invariably overlap onto the other two levels.

The structure of the technology that underlies an organization's communication activities can have an impact on the nature of its linkages. In the present example of electronic mail, the presence of the technology has changed the nature of at one least one communication linkage. A material linkage in the form of distributing hard copy documents has literally melted into an information linkage, which now transfers the documents as electronic data files. As we shall see, the introduction of a computer mediated communication system such as the e-mail, can have a tremendous impact on communication linkages within an organization.

The study of computer mediated communications (CMC) has emerged only in the past fifteen years, with many communication theorists applying older concepts from small group or interpersonal research in an attempt to explain the technology use. Interpersonal communication concepts such as "social presence" and "social intimacy" were used by some authors out of concern for the loss of interpersonal closeness due to the mediation of telecommunication technology (Rice, 1987). Kiesler (1984) notes the loss of interpretive power in the CMC situation brought about by the elimination of nonverbal cues that people rely on during communication interactions. The use of telecommunication technology, in this research, is expected to be limited to messages that exhibit limited information "richness" (Fulk et al, 1987). Hauser and Byrd (1989) argue, however, that the organizational "connectedness" brought about by the e-mail

system can overcome some of the interpersonal drawbacks.

A second approach borrows the ideas of "task" and "socio-emotional orientation" from small group theory to explain the use of CMC systems. Steinfeld (1986) argues that a mixture of both orientations explains the use of e-mail systems, but that factors such as task complexity and task interdependence are of prime importance. Rice and Case (1983) argue that CMC can be explained by organizational status, personality factors and specific attributes of the technology that make it most suitable for different information activities. Fulk (Fulk at al, 1987) argues that "individuals will effectively employ media whose inherent characteristics are congruent with task demands." In other words, task orientation alone does not totally explain use; rather the nature of the information task (indicated in this study by the role of the staff member in the House) has a great bearing on how the CMC technology is used.

Through all of the research, the CMC technology is taken as a given communication infrastructure, with specific, task-oriented attributes such as interactivity (allowing two-way communication) and asynchroneity (allowing non-simultaneous communication). There is little doubt that the communication linkages created by electronic mail have an impact on many levels of the organization. The question addressed in this study is how the e-mail channel is used for different information tasks, and how the communication efficiency introduced by the system further impacts the political process in the legislature, as it engenders information "empowerment" - the strengthened ability to carry

out goals, implement policies and maintain a coherent, effective organization.

Each of the ideas presented here are relevant to the types of change observable in communications activities in both large and small organizations. Each one attempts to address a pertinent aspect of the relationship between communication and technology. This study generates similar concepts in an inductive fashion, using the descriptions of electronic mail users in the Florida House of Representatives to define and qualify the concept of communication efficiency as it applies to the email system, and to uncover the important attributes of their communication over the e-mail system. In the following sections of this paper a technical description of the e-mail system is presented, and a discussion of findings based on the results of interviews conducted with staff members in the Florida House of Representatives.

Technical Aspects of the E-Mail System

The e-mail system in the House of Representatives has been in use for less than a year. The system software is a micro-computer-based package - cc:Mail (cc:Mail Inc, PCC systems) - which is installed on desktop PCs and connected through a local area network within the capitol buildings in Tallahassee. Each microcomputer user has a unique mailing address, and can access all other users of the system through a "post office" located on a central file server which handles all of the messages in the system. District offices around the state can log on as remote nodes via the telephone lines, and can send mail to anyone with a

mail address, including other district offices.

The cc:Mail software offers a stand-alone module (Mail.exe) that is loaded as a standard application which must be exited before using other applications. The package also supports a transient and stay resident (TSR) module (Messenger.exe) that allows users to access the e-mail system using a "hot key" (Alt-2) from within another application. A second TSR can also be loaded that informs the user of incoming mail (Notify.exe). Because the TSR programs pop up on the screen in a window that overlays whatever other software application the person is currently using, the user can be signaled that a new message has arrived, or can read and send messages without leaving a document that he or she is working on.

The software supports both text and graphics files, and can incorporate either in its messaging format. Included with its text editing package is a graphics editor which allows the user to draw diagrams or import graphic files in either TIFF or PCX file formats (Derfler, 1989). Another highly regarded feature of the software is its ability to let the user attach documents to the message. In this way, both text and DOS files can easily be sent to other users. This feature is one of the most used because it allows analysts to send drafts of their work to other analysts or secretaries for editing or proofing. Because all of the staff use Word Perfect 5.0, the text files are readable by all recipients, and can be easily incorporated into a working document.

A major feature of the cc:Mail program is its ease of use. Because the software is menu driven, the inexperienced user can

still make it function adequately by making selections from the menus or using the help screens. The experienced user can quickly make selections by using shorthand command keys that within each menu. Users can easily address anyone else on the system by selecting from a list of user addresses; or the user can create individualized mailing lists for sending messages to specific groups within the House. Incoming messages can be saved to specified "folders", allowing the user to file his or her electronic mail as it comes in. Finally, messages can be sent "return receipt requested" which instructs the operating system to notify the sender when the messages is accessed by the intended party.

The cc:Mail system shares the LAN with a mainframe-based ATMS system, which is used for the actual drafting of bills in the House and Senate. A diagram of the Florida House of Representatives Local Area Network system is shown in Figure 1.

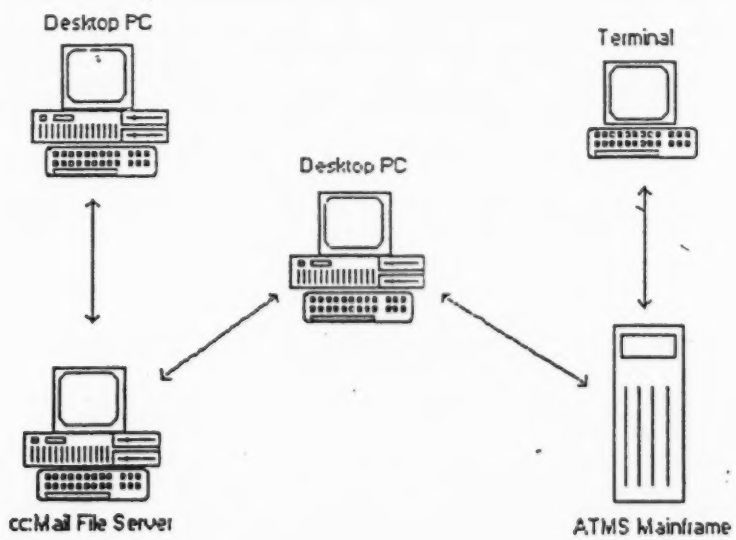


Figure 1: Florida House of Representatives Local Area Network

The user can access the ATMS system either through a terminal or microcomputer. For the PC user, though, there is a drawback to using the ATMS system. Because both systems are accessed through the microcomputer's serial port, the user has to quit cc:Mail to log onto the ATMS system; consequently the person loses touch with everyone else on the e-mail system while working in the ATMS system. A second drawback to the presence of both systems is that files are not interchangeable between the two computer systems, so that bills cannot be edited with the same ease as analyses of bills or briefs drafted using the cc:Mail system.

A final drawback to the e-mail system is that access to the system is restricted to staff members who have PCs, typically secretaries, analysts and staff directors. Representatives and the majority of their aides are not yet on the system, which skews the use of e-mail towards a support role rather than being used directly for political negotiation or decision-making. Plans are in place to connect all of the Representatives to the e-mail system by the 1990 session. Until then, the communication efficiencies generated by the system are most apparent at the staff level.

Patterns of Use of the E-Mail System

In the first stage of the e-mail research program it was important to let users describe the e-mail system from their own perspectives, and so generate a set of pertinent variables and attributes of the system. At the start of the research program I was added to the network as a remote node, and was able to use my

microcomputer as a telecommunication portal, using the e-mail to initiate - and coordinate - interviews with staff members. With the help of a graduate student working under my direction I obtained fifteen in depth interviews with staff members at all levels of the organizational hierarchy, from committee secretaries and analysts to staff directors, in twelve different House committees. This was particularly fortunate for understanding e-mail use because the individuals at each level had different responsibilities, and each tended to rely on the e-mail system for different purposes, and with different communication strategies. A representation of the e-mail use is given in Figure 2, using Porat's (1975) distinctions among creating, processing, transmitting and storing information.

	Generating Information	Processing Information	Transmitting Information	Storing Information
Staff Director	+		+	
Analyst	+ +		+ +	+
Secretary		+ +	+ +	+ +

+ = Relative use of Email system

Figure 2. E-Mail Use as a Factor of Organizational Role and Information Task

At each level in the organizational hierarchy the perspective and usage of the e-mail system system changed, apparently in conformity with the different communication and information tasks required in the position. For example, staff directors were responsible for staff management, interoffice communications, reporting directly to the Speaker's office or to the committee chairman and for writing briefs and reports. These activities led them to rely on the e-mail system for things such as coordinating meetings with their staff, distributing assignments and circulating reports, though their use of the system was not as great as analysts and secretaries working under them.

Analysts, on the other hand, are responsible for conducting research and writing analyses of bills, writing reports, delegating work and helping to manage the office. They tended to rely on the e-mail system for receiving requests for analyses, electronic document delivery of drafts, editing of drafts and coordinating other related activities. The analysts appeared to use their computers and the electronic mail primarily for writing (creating information) and transmitting it. They did a lesser amount of storage, generally in the form of data and hard copy files of analyses and reports.

The secretarial staff are responsible for the final editing and printing of materials, rerouting documents or other communications and maintaining the office functioning. They rely on the e-mail to receive documents such as analyses or correspondence, process them so that they fit formal specifications, and then re-distribute them. They are also

expected to store the documents, and handle miscellaneous communications, many of which have migrated to the e-mail system. In each case the individual's role in the organization, and its related activities, tended to define the type of use that was made of the e-mail system.

An acceleration of communications and information flow is evident in the House during the annual session, due in great measure to the writing, amending and passing of bills. The House of Representatives presents the process of writing, amending and passing bills through both House and Senate in a simplified diagram entitled "How an Idea Becomes a Law" (Morris and Phelps, 1988). diagram, which shows a flow chart of a bill's life, is presented in Appendix A. The simplification of the chart overlooks the many permutations through which the bill must pass in the course of debate. At each step the bill must be analyzed, drafted and re-drafted at the staff level in one or more committees. If we treat the drafting of bills as an instance where communication linkages become paramount, we can better appreciate the impact of the e-mail system in the legislator. A representation of the communication linkages that underlie the drafting of bills is shown in Figure 3.

Each bill may be drafted by several different analysts or bill drafters within a committee (indicated by 'A' in the diagram) who must maintain communications to coordinate the writing process. Analysts are linked to the committee chairman through the staff director (indicated by 'D' in the diagram), and to the secretaries (indicated by 'S' in the diagram) who have the responsibility to process the drafts for final printing. Each of

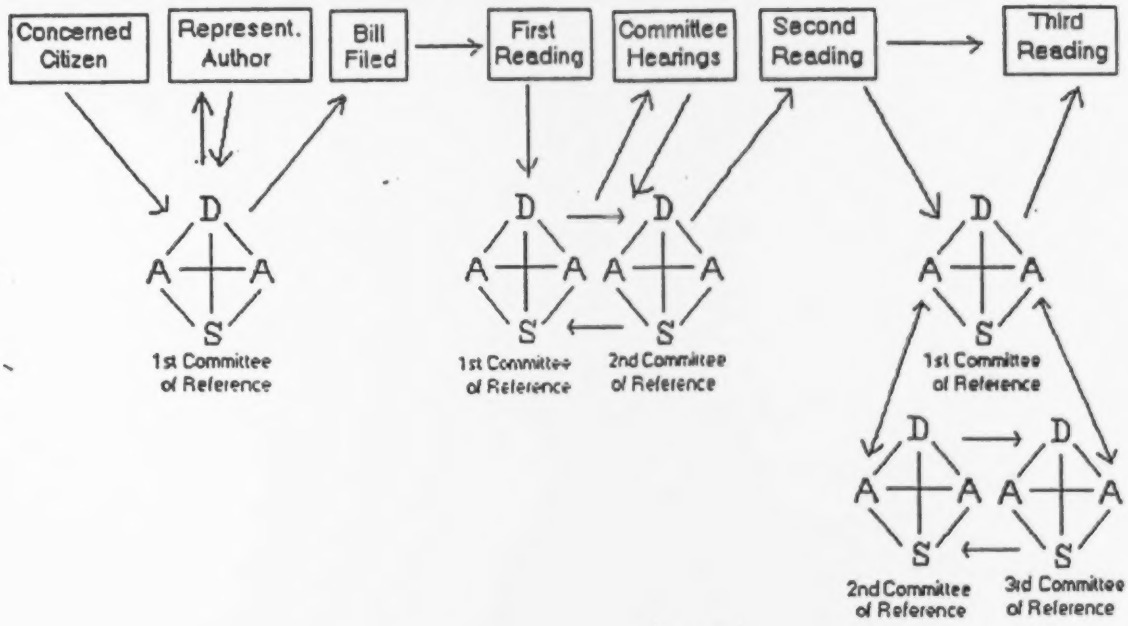


Figure 3. Communication Linkages in the Florida Legislature

these linkages requires one or more communication channels to support the information transactions that must be made continuously. The efficiency of the communications depends in part on the structural efficiency of the communication linkage available to each staff member.

The need for efficient communications increases as the bill moves into second and third readings. At this stage, it can be sent to the second and third committees of reference for review and revisions. The distribution of documents to each of these committees means that sections of each bill can originate or be rewritten in different committees, requiring a multiplication of communication linkages, both within and between the committees. The process of passing bills through committees gave rise to the use of cc:Mail's text attachment feature. For example, the Budget and Finance Committee and the House Appropriations

Committee are often the committees of second and third reference. The bill drafting process necessitates passing documents between committees, editing analyses and drafting different sections of the bills in different committees. The total number of documents that have to be passed back and forth demands an efficient means of document transportation. (An average of 60 to 70 bills are generated per committee, though some, such as the House Committee on Community Affairs process many more; in this case some 225 bills in the 1989 session). The traditional method of document transfer was by courier or interoffice mail; the hard copy document was then edited, rewritten and retyped as it passed through each committee of reference until it reached its final version. A great deal of the task orientation of staff members focuses on writing, transporting and editing documents pertaining to bills coming to the floor of the House, and the ability to attach text, and transmit it through the e-mail system added a tremendous leap in the efficiency of this process.

The coordination of bill drafting activities requires an efficient communication infrastructure to ensure the timely completion of the document within the span of the legislative session. The introduction of the e-mail system within the Florida legislature has facilitated much of the communications activity involved in document drafting. And it is needed, as the total number of bills introduced in the Florida legislature has increased from about 2,200 in 1981 to almost 3,000 in 1988. The increase in communication efficiency brought about by the e-mail system was acknowledged by all of the staff members interviewed. Among the efficiency attributes described in the interviews were:

speed of communication, quicker turn-around time, less procrastination, reliability of the message reaching its goal, permanence and precision of the message, and the inclusiveness of the system which allowed more people to be brought into an information loop. It was noted that decision-making over the system was not more efficient, due to the enormous amount of information needed for successful negotiation.

Two major attributes of the e-mail system, then, are the speed of communications and the communication reliability that it offers. While the telephone is direct, and indispensable for a large number of communication needs, it is not necessarily efficient nor a reliable channel because all too often the other person can not be readily reached. Interoffice mail, conversely, generally reaches the person but is too slow. The e-mail system allows users to send messages fully confident that the recipient will receive the intended communication rather than a shorthand telephone message. Many people use the "return receipt requested" option of the software, which notifies the sender that the message has been received. Reliability of communications is an imperative in an information-intensive environment such as the House of Representatives. The large numbers of documents that need joint drafting in different committees, the numerous staff members who need daily assignments, coordination for meetings and continually updated information pertinent to the legislature, and the constant pressure of deadlines combine to make reliability an important asset.

Two factors underlie the reliability of the e-mail system:

the assurance that the message will be delivered accurately and the knowledge that the recipient does not have to be present simultaneously to receive the message (asynchroneity) as, for example, on the telephone. Because of these two factors, staff members have tended to change their communication strategies. Secretaries and analysts, for example, will come into the office and look to their e-mail for the morning's work assignment or meeting schedule; staff directors or analysts can work at odd hours but still address questions or answers to other colleagues; meeting announcements can be sent to all staff members involved more efficiently than the traditional paper memo because transmission and reception are assured. Some committee secretaries have their staff notify them via e-mail if they are to be out of the office for any length of time; or they would log telephone messages onto the e-mail system, thus ensuring reception. Another communication strategy would be to send an e-mail message indicating one's intent to discuss something, followed up by a telephone call. Because the telephone has the advantage of allowing greater reciprocity of communication than the e-mail, it is the preferred channel when several questions in sequence need to be asked; however, the e-mail was preferred when a single question was required.

The asynchroneity of communication also works to the benefit of the receiver on the e-mail system. A number of the people interviewed reported that would wait until they could attend to their e-mail messages without distraction, and would tend to process all of the incoming messages at one sitting. This element of choosing when to read and consider messages, rather

than undergoing a continual interruption with the telephone, adds a measure of control over the communication process that the staff members valued. Thus, numerous changes in communication behaviors on the part of both senders and receivers on the e-mail system can be attributed to the quality of communication reliability that they felt existed in the system.

A third important attribute of the system - the ability to attach files to a message - in conjunction with a predominant characteristic of committee activity - transporting documents - gave rise to a major use of the system for electronic document delivery (EDD). At all levels of the hierarchy briefs, analyses and memoranda were generated on the PC and transmitted through the e-mail system. Analysts in particular quickly came to depend on the e-mail for EDD. They could receive a request for an analysis or an initial drafting of a bill from a district office or from the committee chair, and could send a draft of their work to appropriate colleagues or other committees much more expeditiously than before. Several analysts recounted that when different sections of a single bill were analyzed by different committees of reference, the e-mail became essential for updating drafts and for coordinating the writing of the different sections. The reliability of the system has supported the joint drafting of analyses and reports by several analysts. Because one's work can be incorporated in another's file so readily, and mutual feedback is assured, the ability to cooperatively write a document is enhanced. One staff director referred to the resulting draft as a "consensus document" - one which incor-

porated the ideas of several people who could be brought together for a single task while geographically separate.

Secretaries who had the responsibility for printing out the final copies of documents and letters also relied heavily on the EDD capability. They are responsible for ensuring the final document is presented in correct form and is free of errors. By using the e-mail system they are able to make changes to documents without retyping them, and print them out directly. Some secretaries were responsible for managing document traffic as well as editing. In these cases the updated document could in turn be disseminated to the appropriate staff members for further revisions by means of the e-mail system.

The savings in both time and mailing costs add up tremendously over the course of the session. This is most evident for the district offices which can bypass FedEx or postal charges by sending documents via the e-mail; because the telephone cost is covered by the state SUNCOM telecommunication system, the document is sent "free", or at least at a lesser cost than previously. In addition the time lag between sending and receiving the documents is dramatically minimized. Because of the pertinence off EDD to the communication activities of the House staff, and the time a labor savings, the e-mail system has been readily incorporated into the operations of the House staff members.

A fourth important aspect of e-mail system use is the ability to send multiple copies of the same message to all people concerned. The software allows the user to create personalized mailing lists that can include all staff members related to a

single program. the user can write one message and send it to the mailing list, and all addressees will receive the message or attached document. This benefit of this capability is obvious when notifying people of meeting times, sending out documents for review, and giving instructions to members of a team. By using this function staff members can notify district offices about events in the capital and include transcripts, press releases and so on to keep individual Representatives informed on a timely basis. (This scenario was used when the Governor announced a special session of the legislature to change the state's abortion laws. Each Representative was sent an information packet so that he or she would be completely up-to-date with events in Tallahassee.) the ease with which groups of people can be addressed leads to a more efficient coordination of activities, and supports more cooperative, team-oriented projects.

A final attribute of the e-mail system is the ease of its use. While the use of any computer software requires a basic familiarity with the program, the cc:Mail software profitably combines simplicity with power, leading the naive user through a set of menus that guide him in sending or receiving a message. Of particular value to the users interviewed was the ability of the program to pop up as a window over another application. This cut down on the number of steps necessary to access the network and made communications very direct and straightforward. the more experienced user is able to manage messages by saving them in "folders", can easily create mailing lists, and can forward messages. By offering functionality to users at all levels of

expertise the cc:Mail program has helped to quickly develop a "critical mass" of users in the House of Representatives.

For all of these reasons, and perhaps for many others, the e-mail system in the House has swiftly become incorporated in the communication strategies of many staff members. The value for and reliance on the system is already at the point where its withdrawal would disrupt many of the day to day activities of the staff members in the legislature.

Summary and Theoretical Model

In summary, five major attributes of communication efficiency resulting from the e-mail system in the Florida House of Representatives were isolated to explain the use of the technology:

* Speed of Communications
* Communication Reliability
* Electronic Document Delivery
* Multiple Messaging
* Ease of Use of the Software

In conjunction with these five attributes, several emerging communication strategies were discussed, many of which are related to increased efficiency of communications and reduction of redundant efforts. The assurance that a message would be received accurately, if asynchronously, positively changed some staff members' perceptions of their communication control, and resulted in changes in the way messages (i.e., memos) were sent and received. One change in message-sending was based on being able to attach files, which accelerated the speed with which

draft documents were transported, revised and finalized. Another change in message-sending occurred due to the ability to reliably send the same message to multiple receivers. The coordinative efficiencies resulting from this activity made electronic mail a primary channel to notify staff personnel of meetings. Finally, the ease of use of the software has persuaded even individuals who are more comfortable with face to face communications to learn to communicate via the computer.

The study reported here is only the first step in a more comprehensive research program. It has so far served to isolate important factors, explicate the unique communication needs of the staff members in the House of Representatives, and to define the scope of research needed to fully understand the impact of information technologies like electronic mail. To more fully understand the impact of a communication technology such as electronic mail it is important to conceptualize the major factors as they stand in relation to one another. Figure 4. presents a path analysis model of the relations among the different variables involved in the introduction of an e-mail system into an organization such as the Florida House of Representatives.

As shown in the figure, a social system has an impact on the nature of the information tasks required for its proper functioning, and on the information technology employed in those tasks. There is a reciprocal relationship between an organization's information tasks and the technology employed to support the needed communication linkages required to carry out those tasks. Both affect each other, and both evolve through the unique characteristics that arise due to their interaction, as in

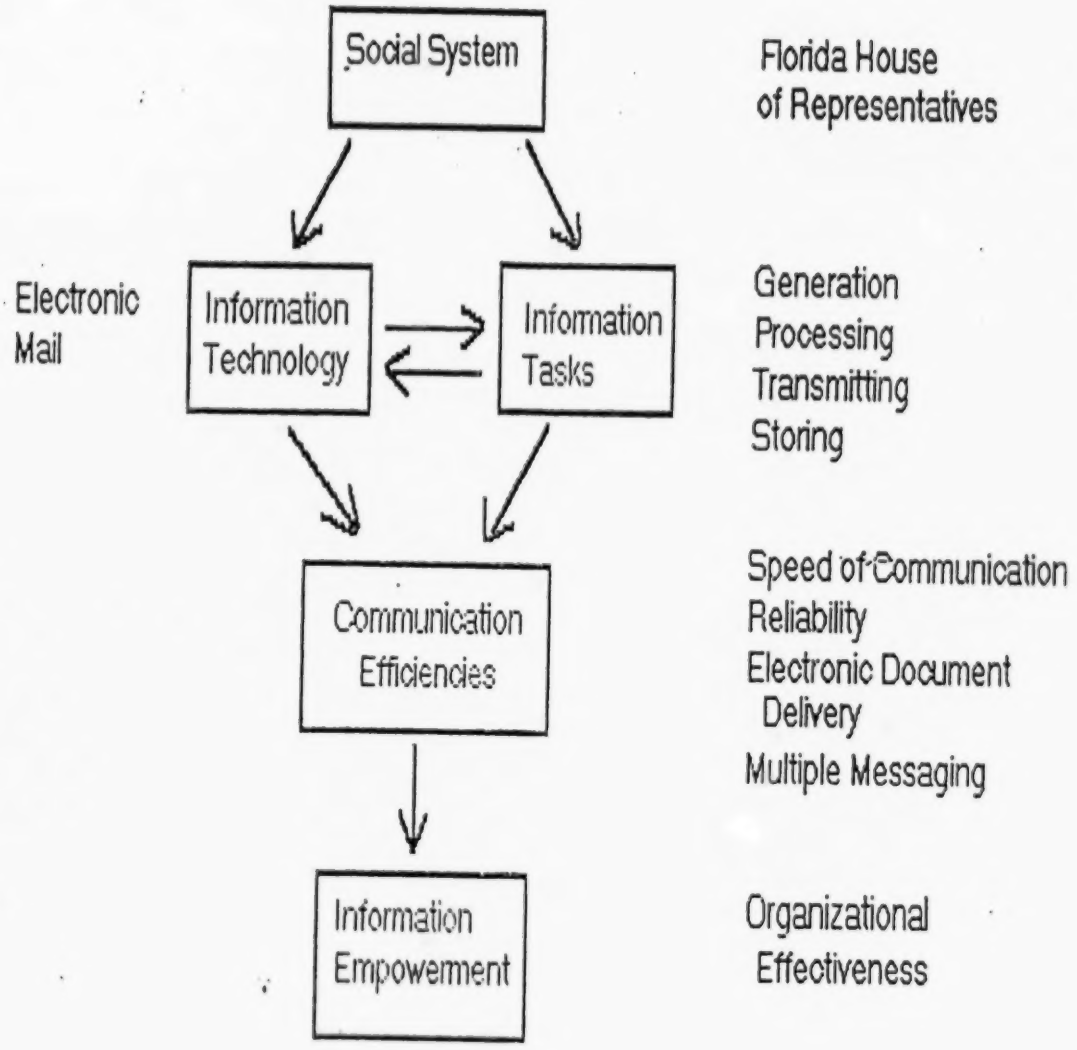


Figure 4. Path Model of Factors Impacting Information Empowerment

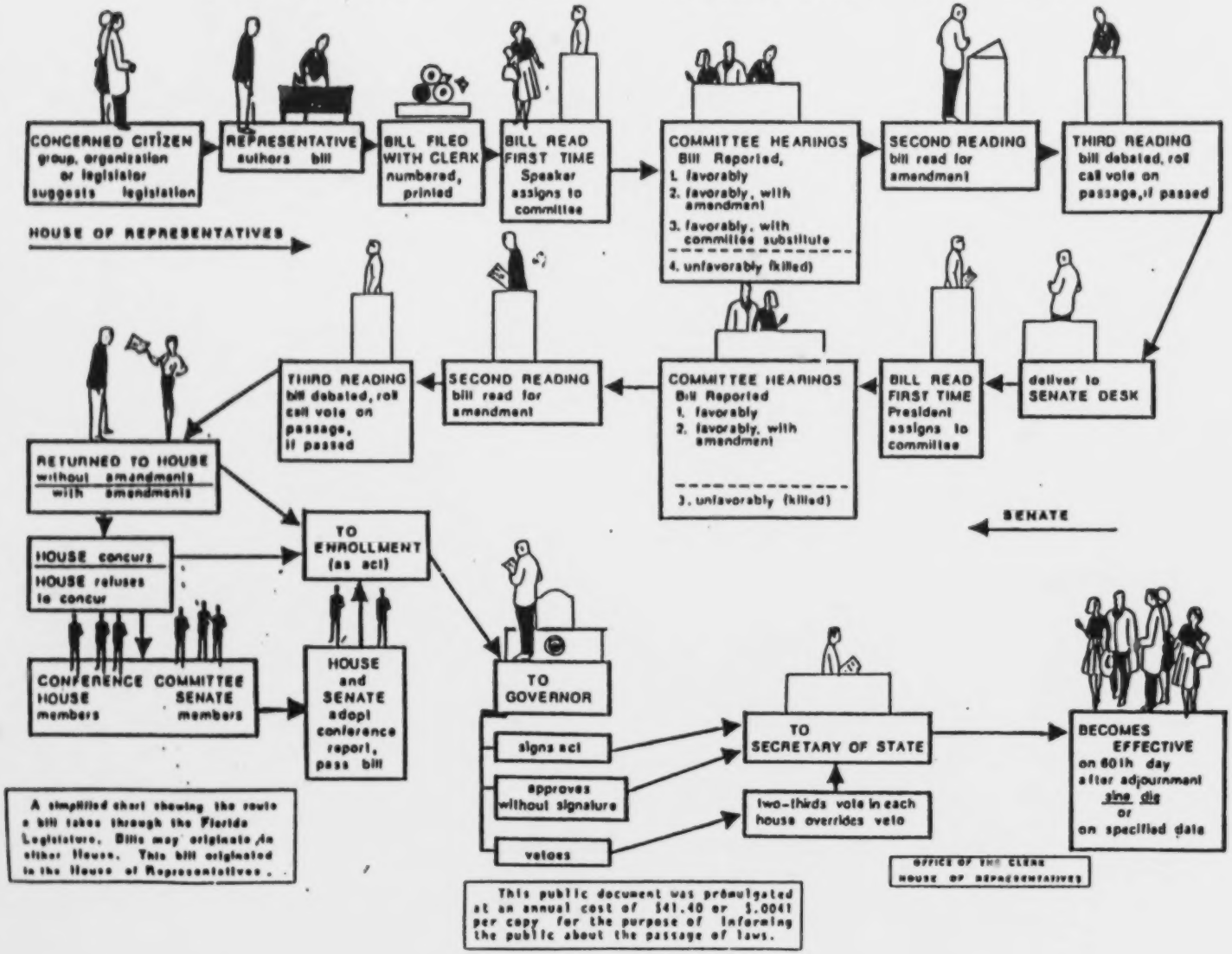
the example of the e-mail system being used to amplify the ability to draft analyses and bills. The implementation of information technology to complete necessary information tasks gives rise to a set of communication efficiencies that impact the operational effectiveness of the organization. The speeding up

of document transfer, for example, decreases the turn-around time needed between project input and output, thereby speeding up the bill drafting process.

The compounding of communication efficiencies and their impact on organizational effectiveness generates a degree of "information empowerment" in which the inputs of information at one end of the system are amplified greatly when they emerge as outputs in the form of effective organizational functioning. The information empowerment thus engendered can feed back into the social system as a new input in the organization's information processing activities. The basis of "empowerment" comes from the use of communication technology, such as electronic mail, to increase the efficiency of communication linkages within the organization, and to strengthen the effectiveness of the organization in its external environment.

The study of information technology is a vital and important area of concern for communication scholars. The microelectronic revolution is driving communications into an intense evolutionary phase. Studies such as the one initiated here at the Florida House of Representatives are vital for adding to the general pool of knowledge about the direction of communication change resulting from the impact of information technology. By diligently pursuing the questions raised in this report across many different organizations, communication situations and technological support systems, it will be possible to develop a general theory of how information technology changes the way we communicate in the modern world.

How An Idea Becomes A Law


CONCERNED CITIZEN group, organization or legislator suggests legislation
REPRESENTATIVE authors bill
BILL FILED WITH CLERK numbered, printed
BILL READ FIRST TIME Speaker assigns to committee
COMMITTEE HEARINGS Bill Reported, 1. favorably 2. favorably, with amendment 3. favorably, with committee substitute 4. unfavorably (killed)
SECOND READING bill read for amendment
THIRD READING bill debated, roll call vote on passage, if passed
HOUSE OF REPRESENTATIVES
deliver to SENATE DESK
BILL READ FIRST TIME President assigns to committee
COMMITTEE HEARINGS Bill Reported 1. favorably 2. favorably, with amendment 3. unfavorably (killed)
SECOND READING bill read for amendment
THIRD READING bill debated, roll call vote on passage, if passed
SENATE
RETURNED TO HOUSE without amendments with amendments
HOUSE concurs
HOUSE refuses to concur
TO ENROLLMENT (as act)
CONFERENCE COMMITTEE HOUSE members SENATE members
HOUSE and SENATE adopt conference report, pass bill
TO GOVERNOR
signs act
approves without signature
vetoes
two-thirds vote in each house overrides veto
TO SECRETARY OF STATE
BECOMES EFFECTIVE on 60th day after adjournment sine die or on specified date
OFFICE OF THE CLERK HOUSE OF REPRESENTATIVES
A simplified chart showing the route a bill takes through the Florida Legislature. Bills may originate in either House. This bill originated in the House of Representatives.
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